

FIG. 1

203220" 25FE6660

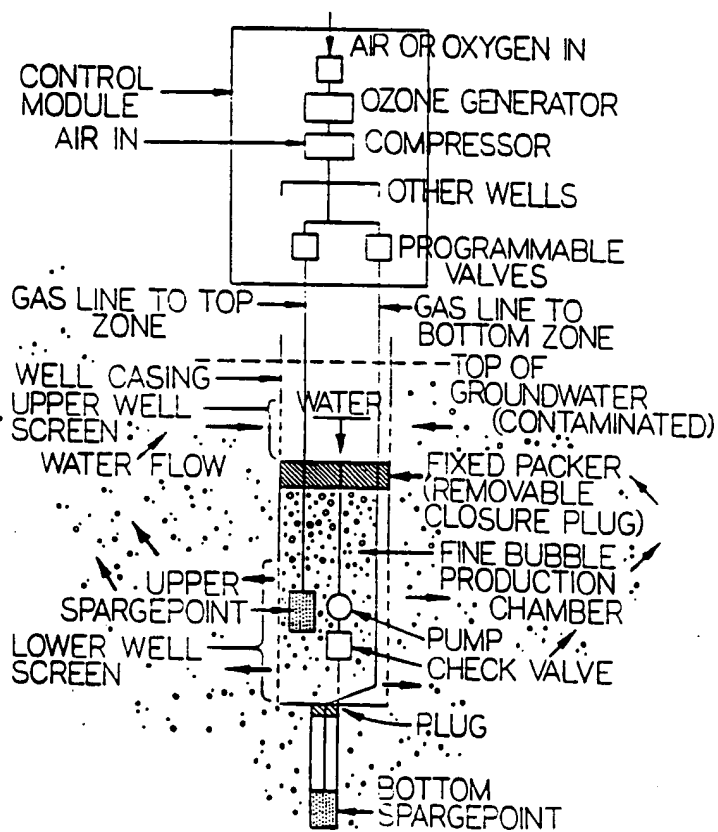


FIG. 2

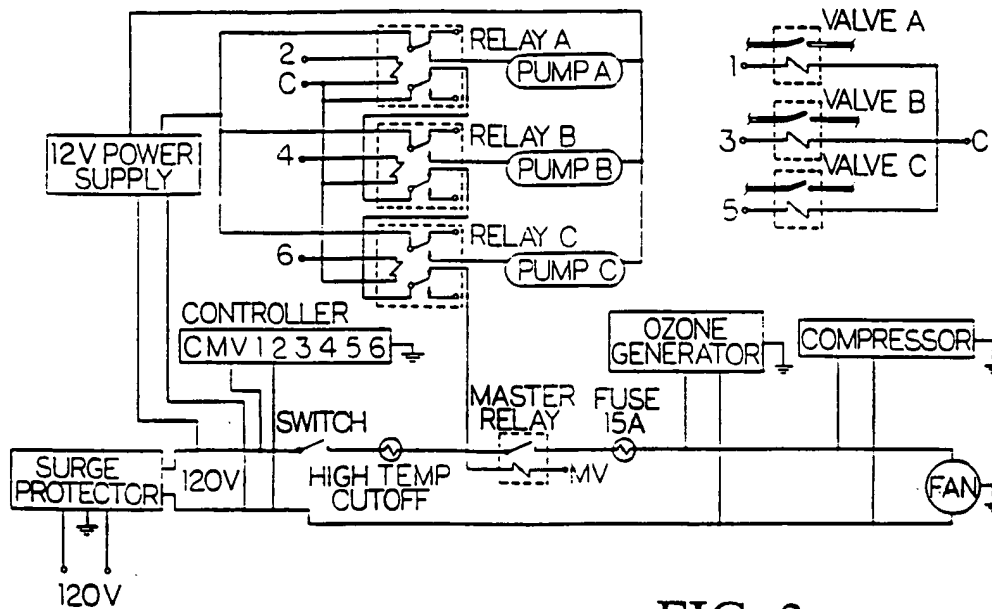


FIG. 3

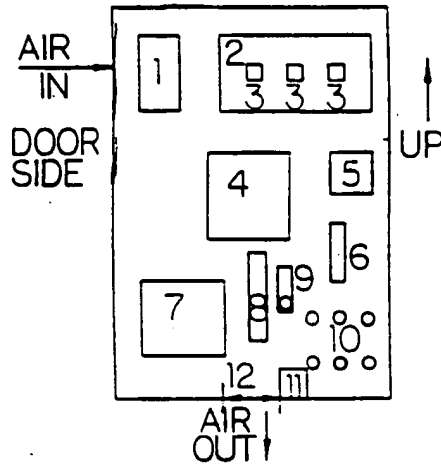


FIG. 4

- 1 AC TO DC POWER CONVERTER (OR TRICKLE CHARGED LEAD ACID BATTERY)
- 2 OZONE GENERATOR
- 3 WELL GAS RELAYS (3 WELLS SHOWN)
- 4 COMPRESSOR
- 5 MASTER RELAY
- 6 15A MAIN FUSE
- 7 PROGRAMMABLE TIMER-CONTROLLER
- 8 POWER STRIP
- 9 GAS REGULATOR AND PRESSURE GAGE
- 10 SOLENOID MANIFOLD (NUMBER DEPENDS ON SERIES AND NUMBER WELLS)
- 11 GROUND FAULT INTERRUPTOR
- 12 COOLING FAN

0993152 022602 205220 251660

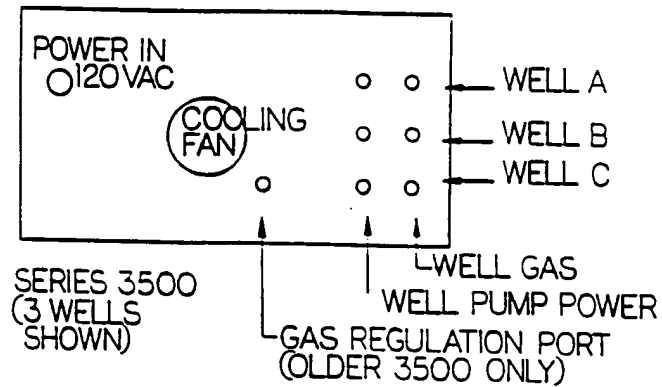


FIG. 5A

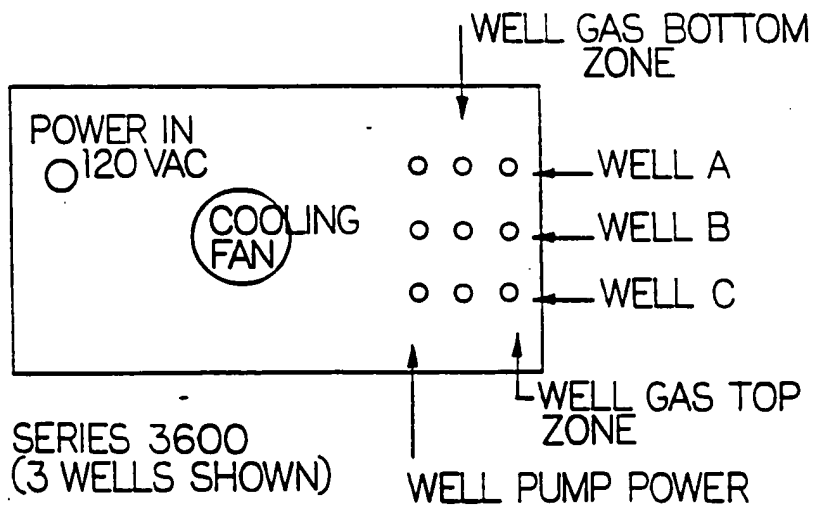


FIG. 5B

20250220 2576660

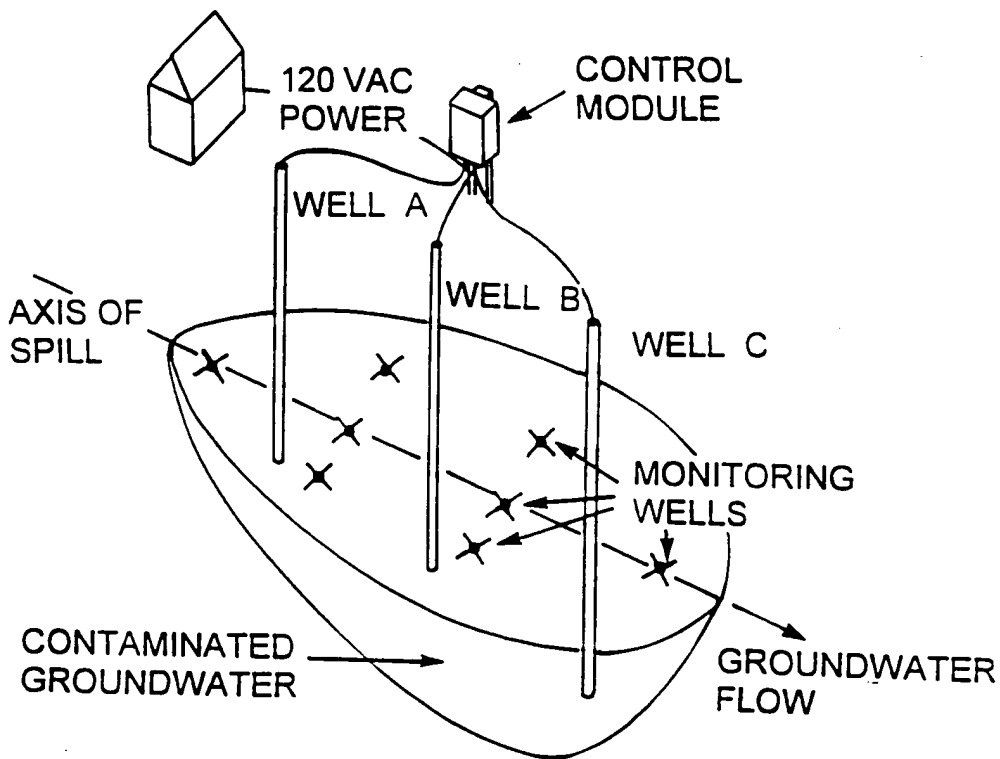


FIG. 6

205220" 25 FEB 66

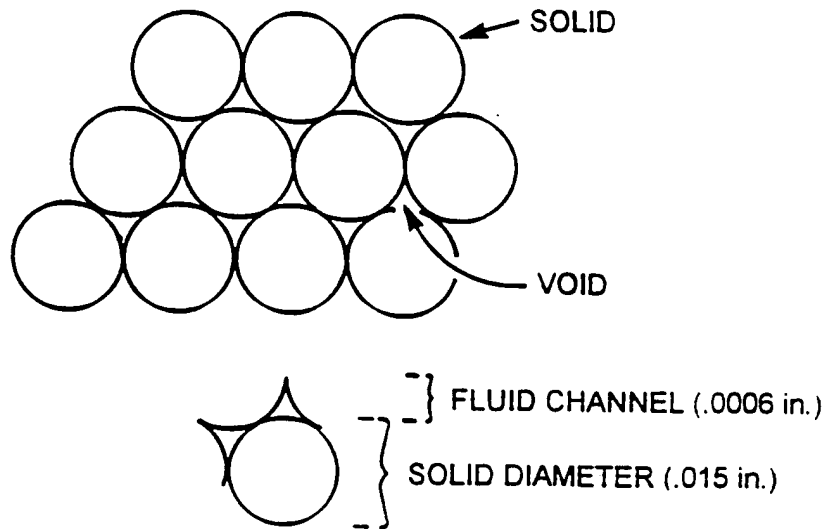
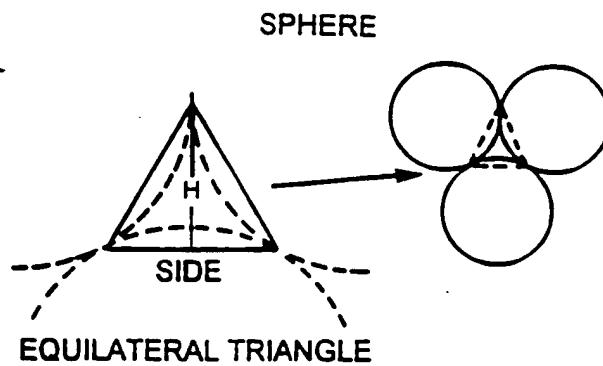
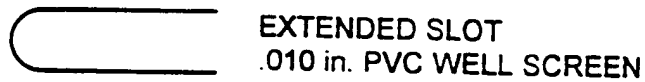


FIG. 7



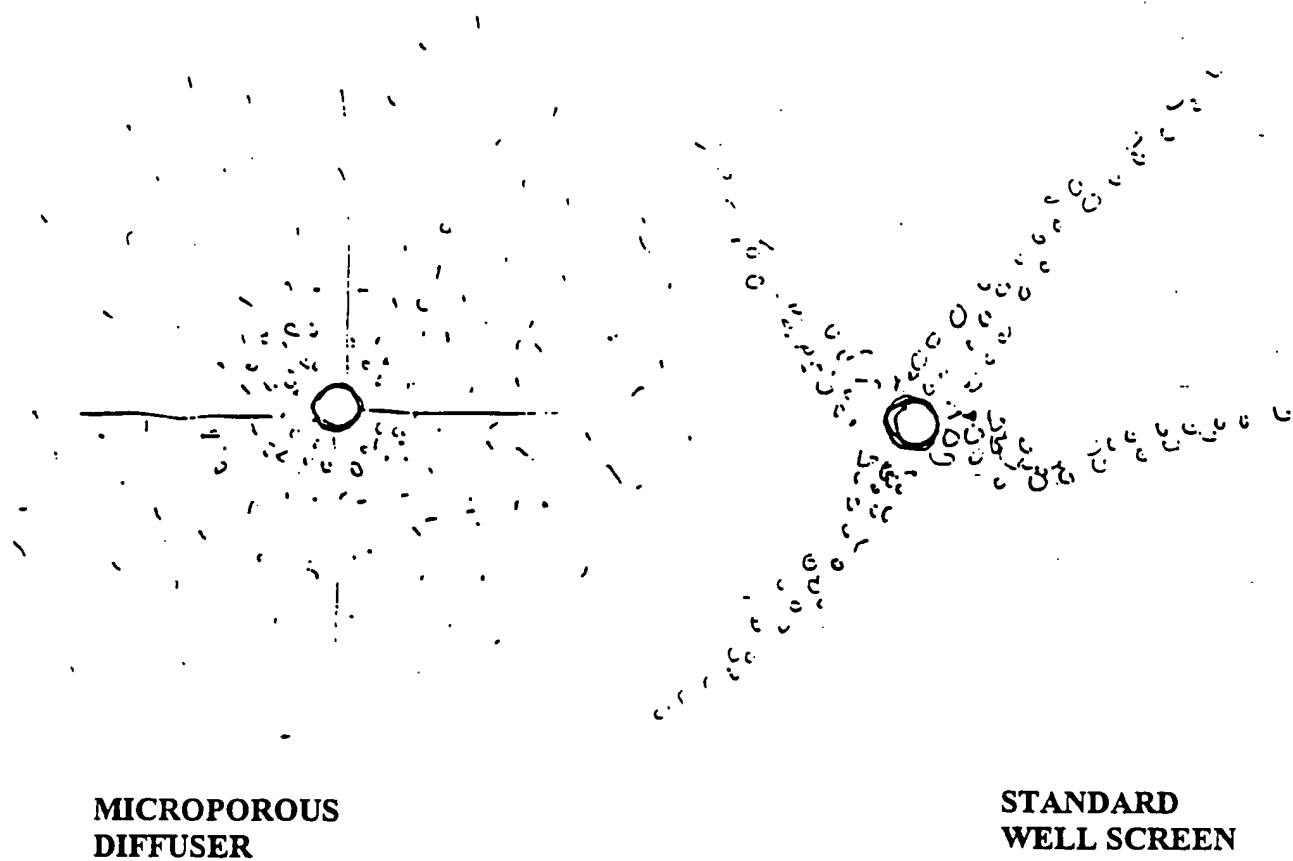


FIG. 8

Permeability of Glass Beads Compared
with Permeability of Soil Fractions

Mean Bead Diameter (mm)	Pore Space (microns)	Permeability (Darcy)	Gas Conductivity (cm/sec)	Equivalent Soil Classification
2.000	860	1000	1.000	Very coarse sand
1.200	516	250	0.250	Coarse sand
0.655	281	147	0.147	Medium coarse sand
0.327	140	85	0.085	Medium sand
0.167	72	22	0.022	Fine-medium sand
0.083	36	9	0.009	Fine sand
0.041	18	5	0.005	Very fine sand
0.020	9	2	0.002	Very fine silty sand

Modified from Anderson, et.al., 1987²

FIG. 9

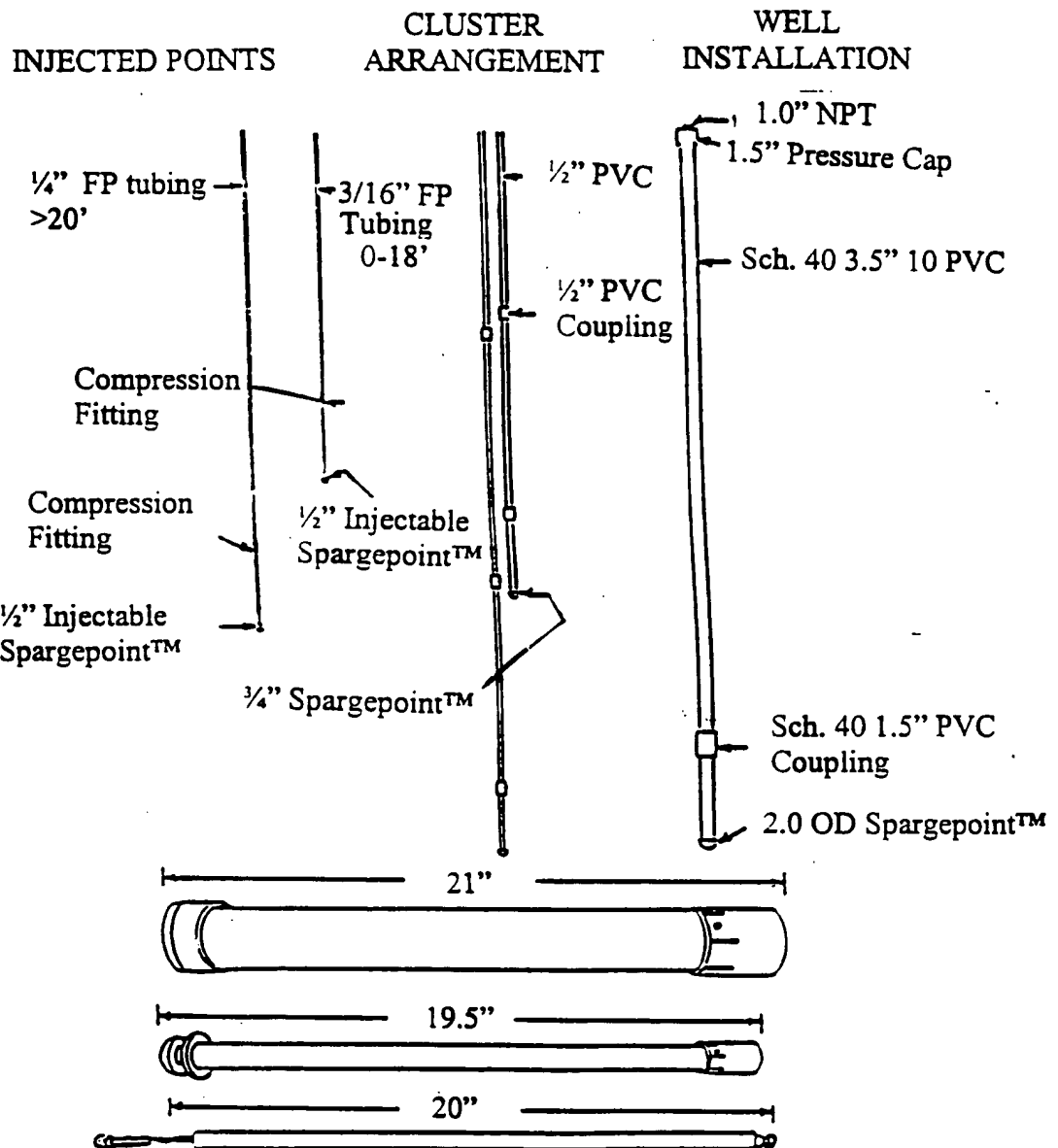


FIG. 10

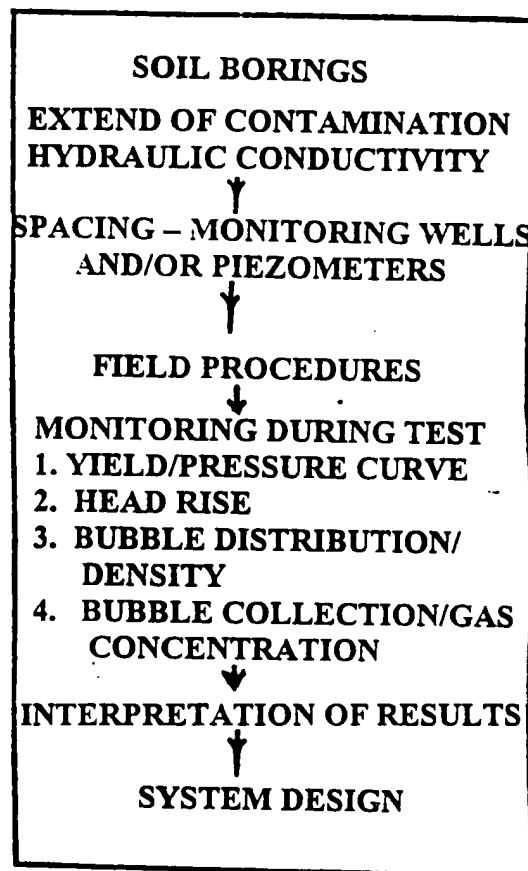


FIG. 11

SPARGEPOINT™ TEST ASSEMBLY
 1/2" OR 3/4" POINT WITH 1 INCH CASING

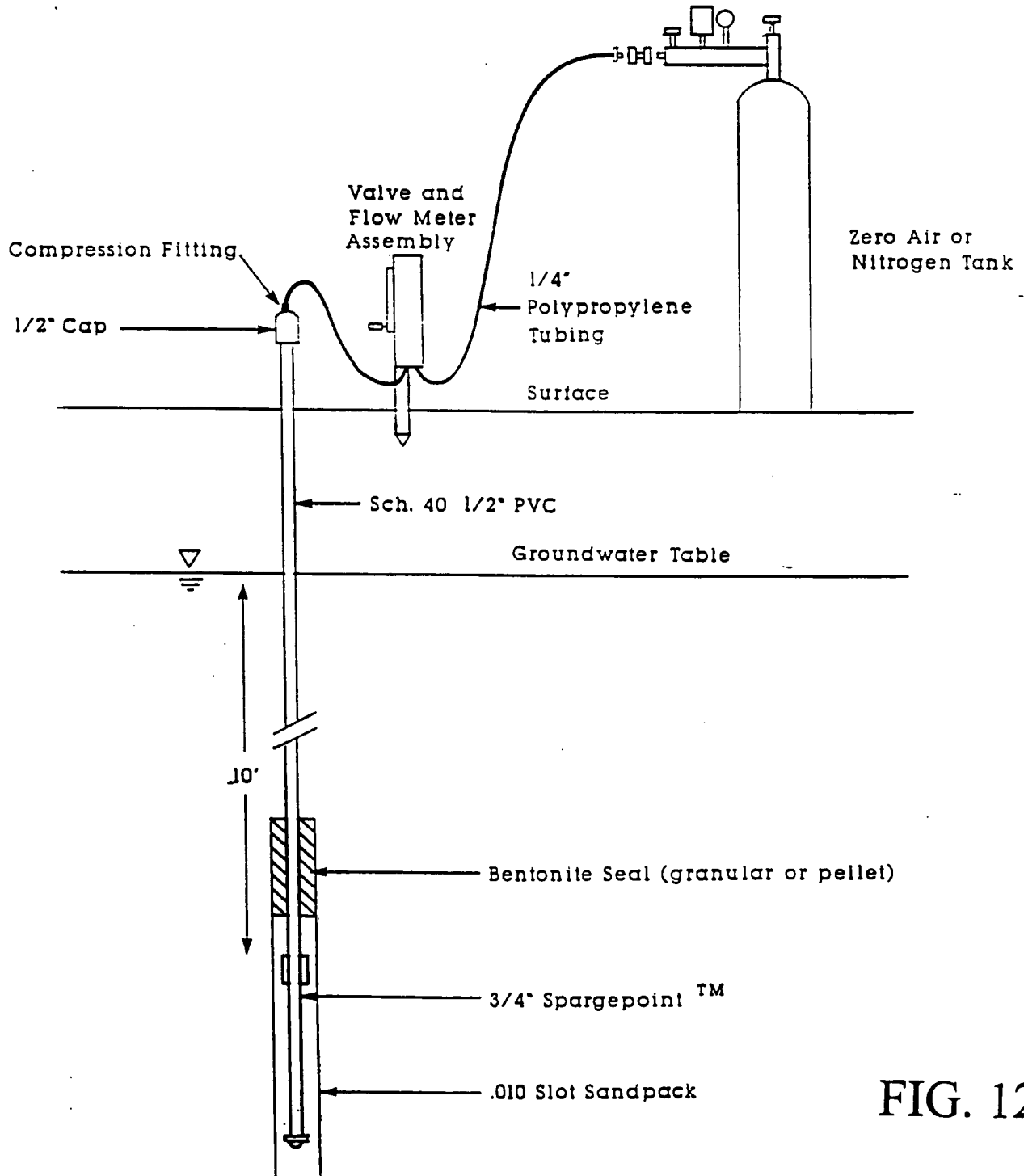


FIG. 12

205220" 23 FEB 65

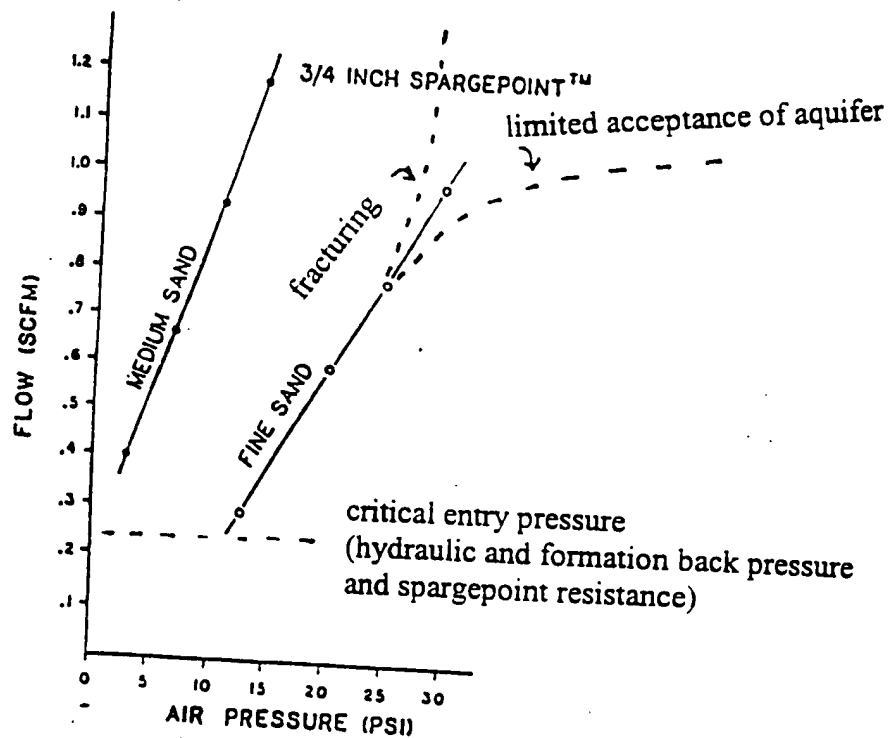


FIG. 13

INFLUENCE OF DEPTH AND PRESSURE ON RADIUS OF BUBBLE ZONE

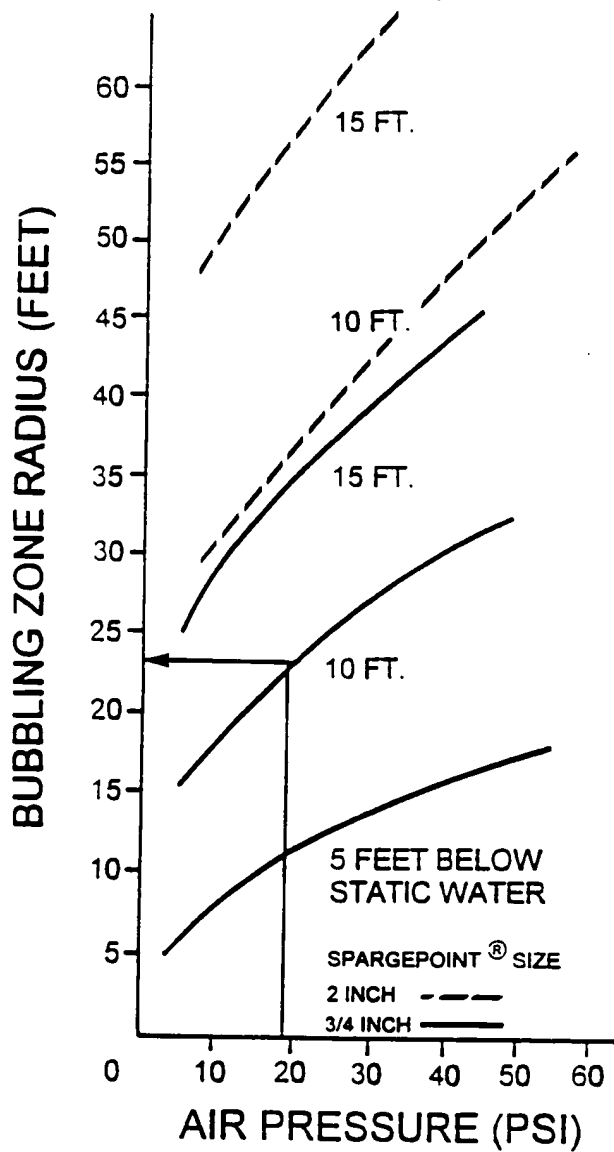


FIG. 14

205220" 257E6660

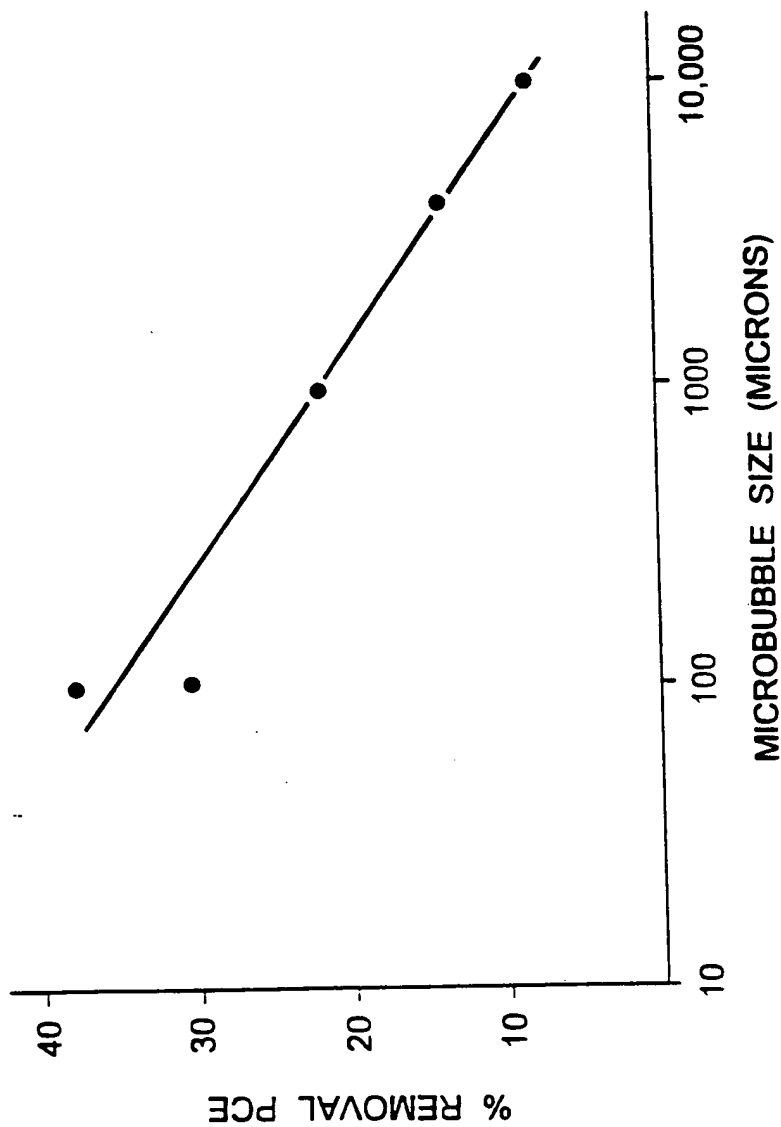


FIG. 15

205220" 257E660

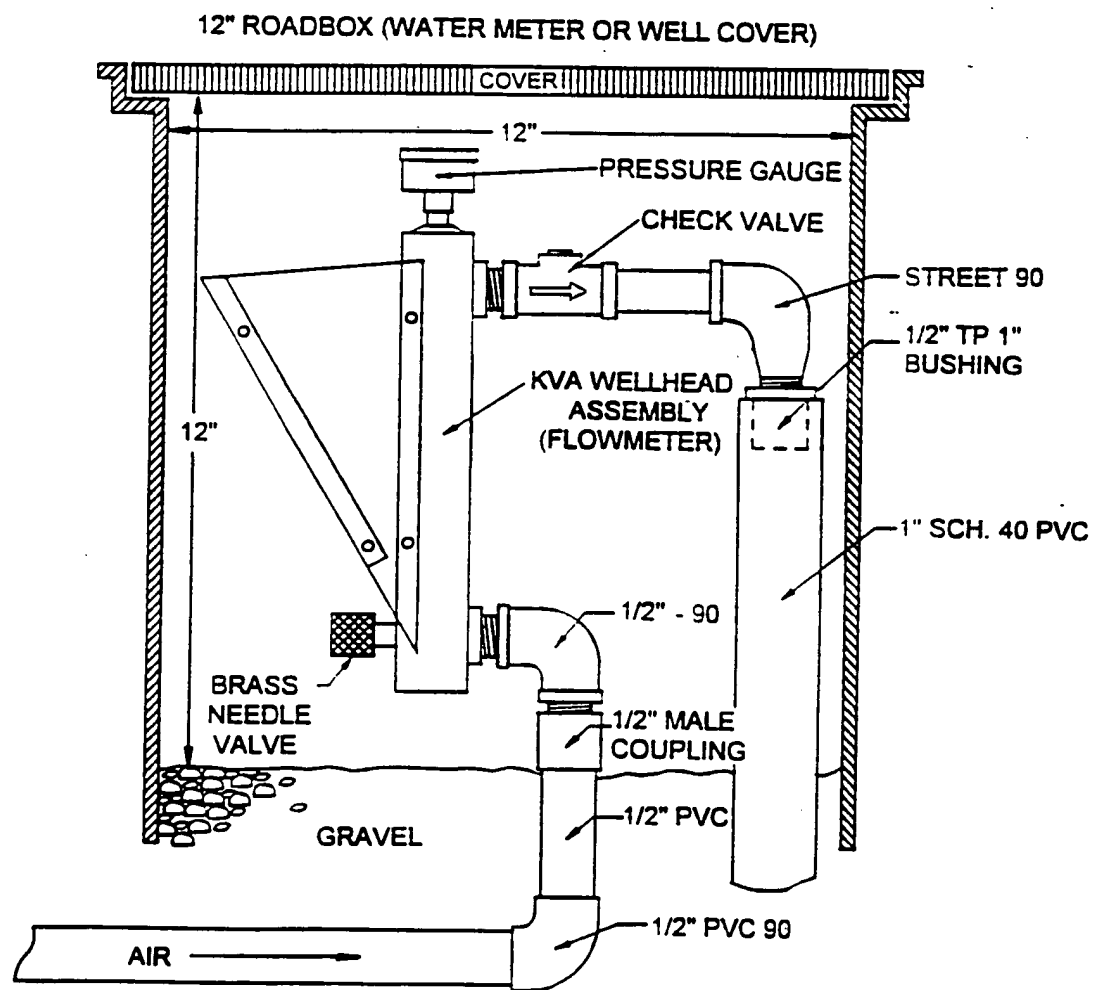
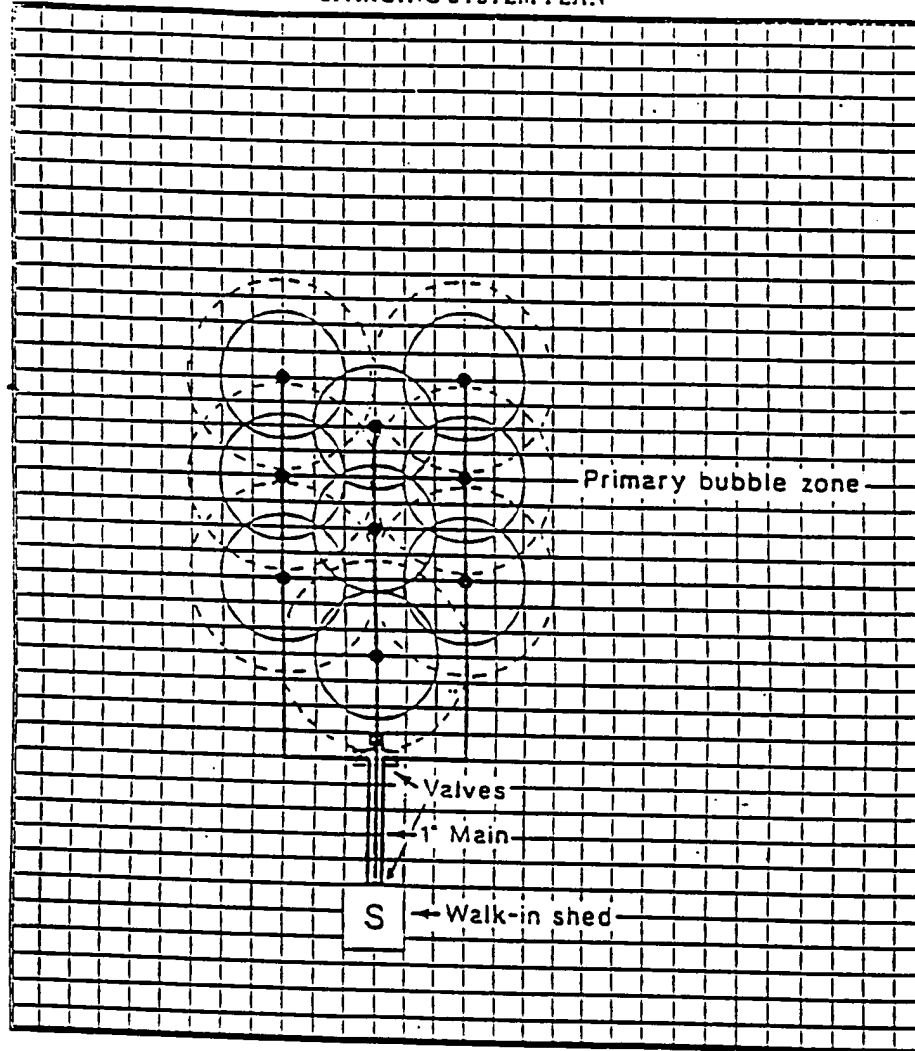


FIG. 16

SPARGING SYSTEM PLAN



Size of Sparge Area	100 x 150 ft	Size of SVE Area	150 x 200 ft
Use of Zone Control?	3 zones	Size of SVE System	150 scfm
Number of Spargepoints™	9	Depth to Water	10 ft
Soil Conditions	MEDIUM SAND	Type of Contaminant	BTEX

FIG. 17

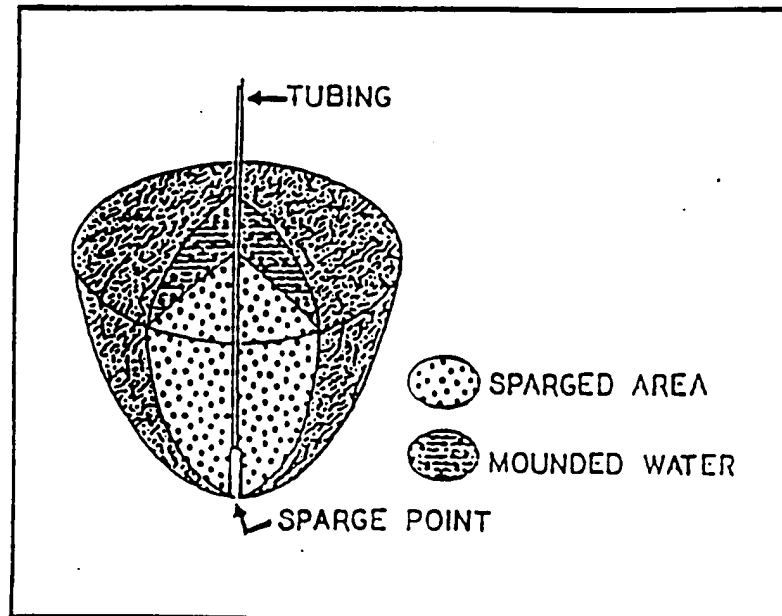


FIG. 18

09/993,152, 02/25/02

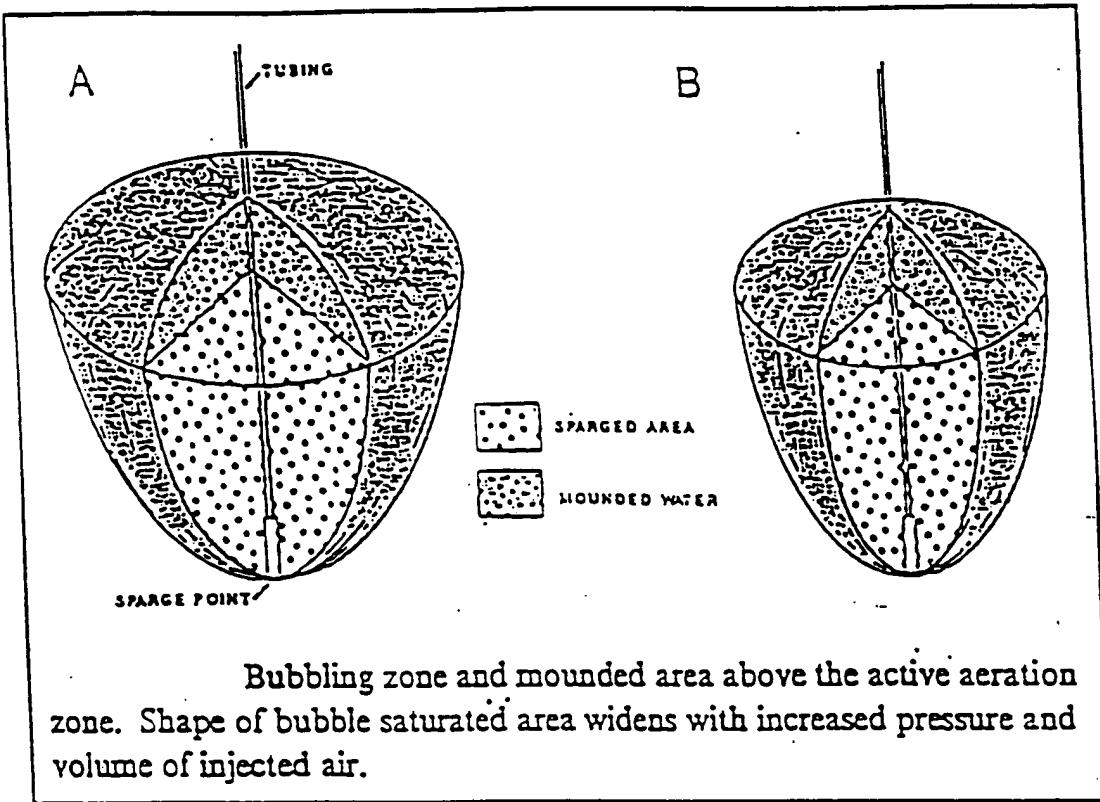


FIG. 19

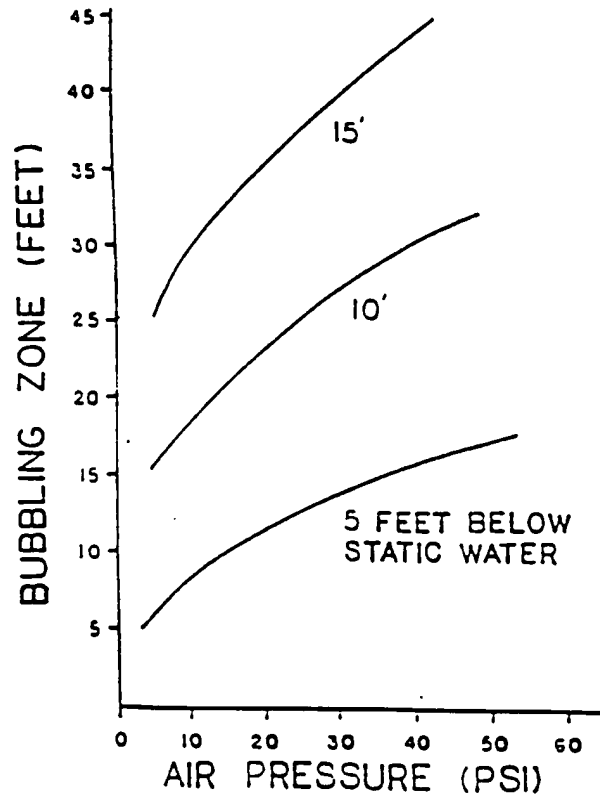


FIG. 20

Sequential rise in water table from bubbling. Concentric zones permit containing
Any floating contaminant.

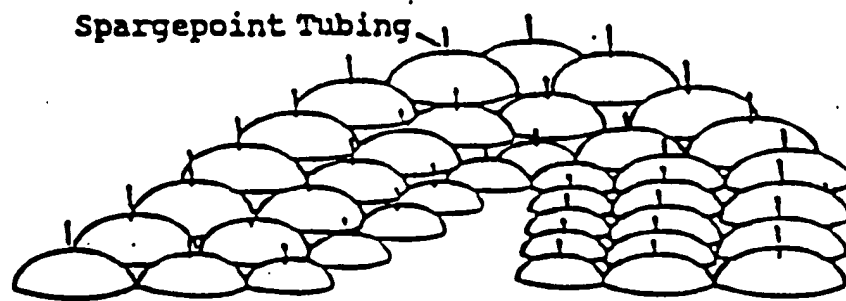


FIG. 21

205220 257E660

Sequential rise in water table from bubbling. Concentric zones permit containing any floating contaminant.

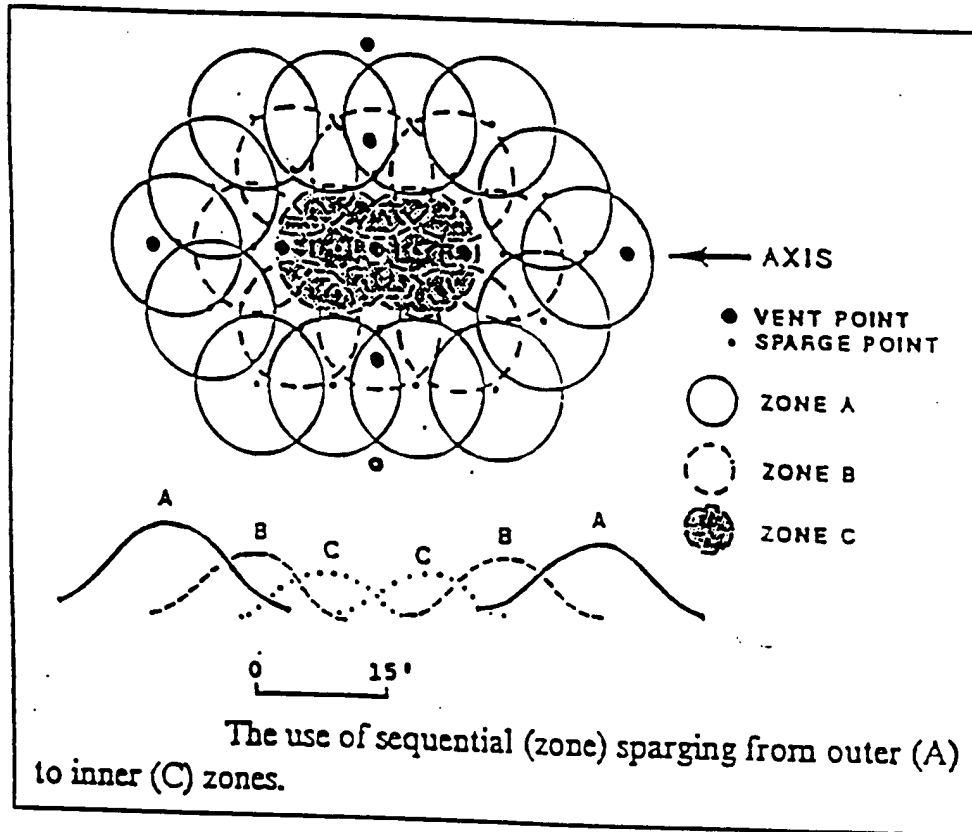


FIG. 22

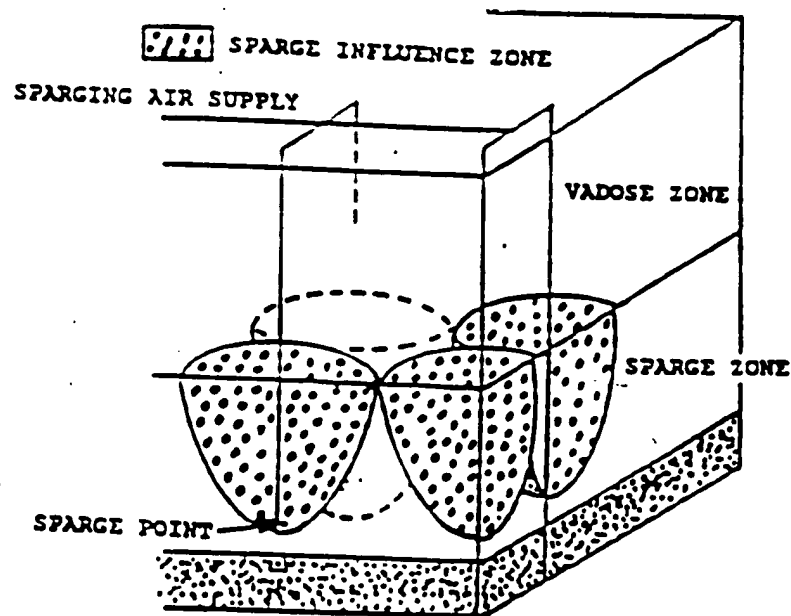


FIG. 23A

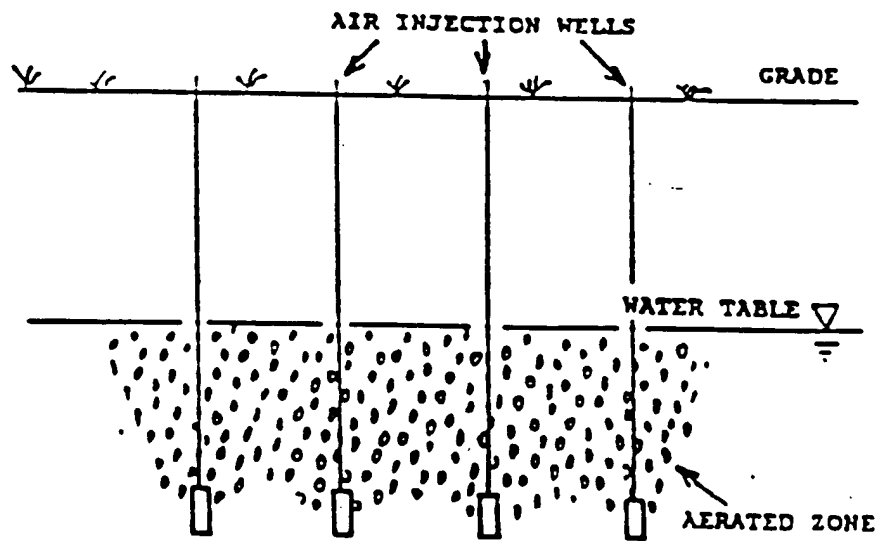


FIG. 23B

20220720 15:26:50

2022 OUTSIDE VENT 600

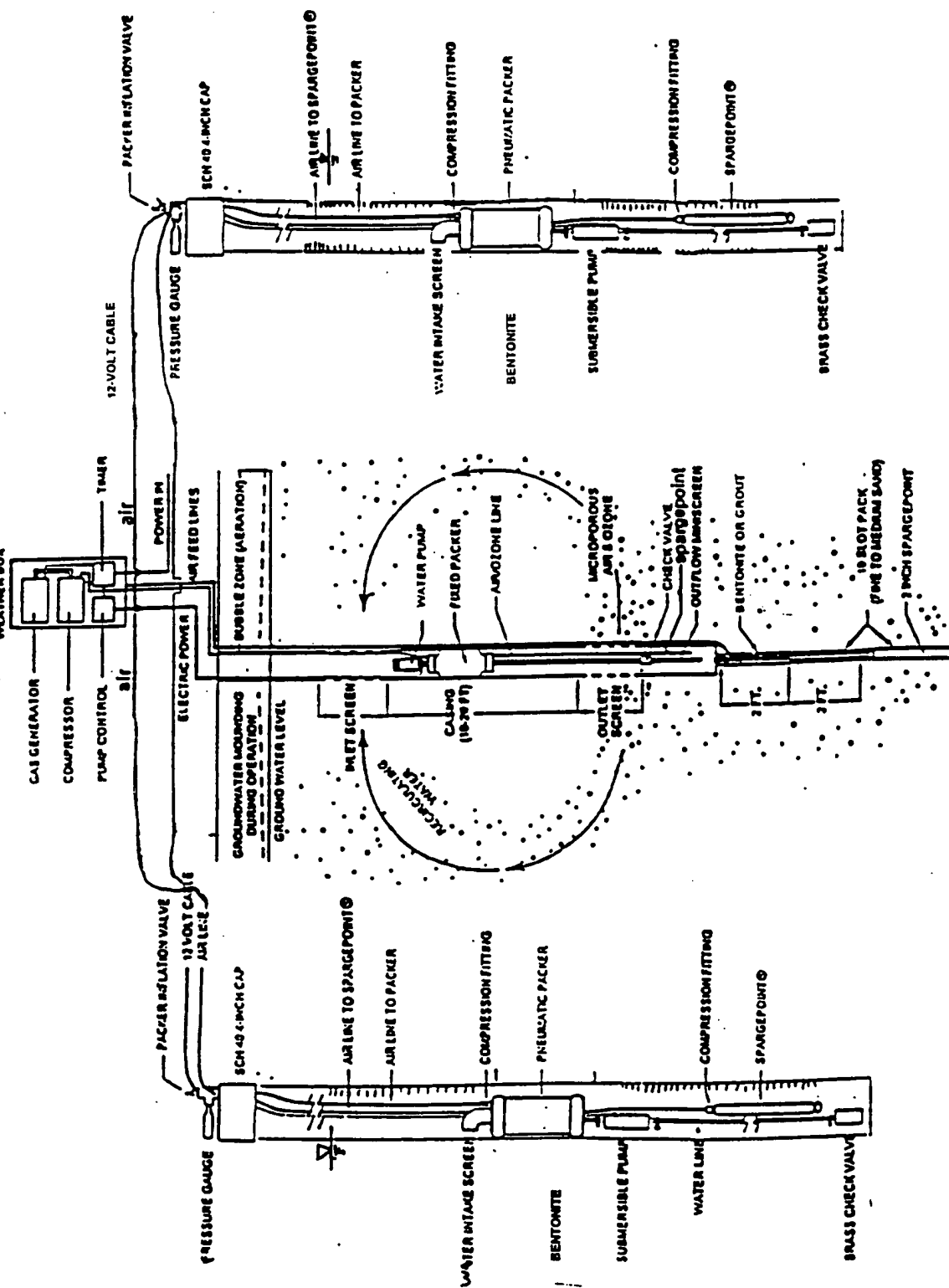


FIG. 24

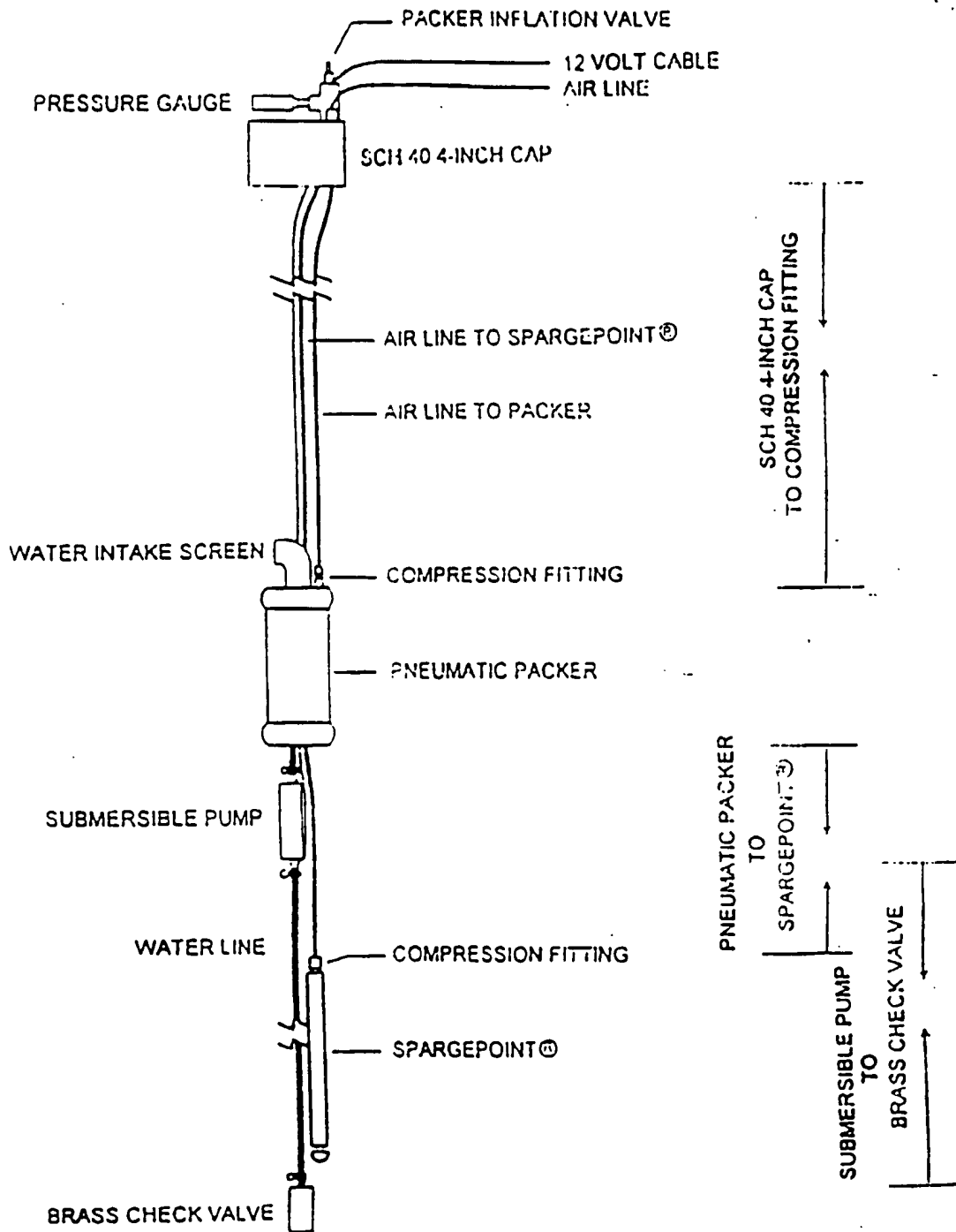


FIG. 25

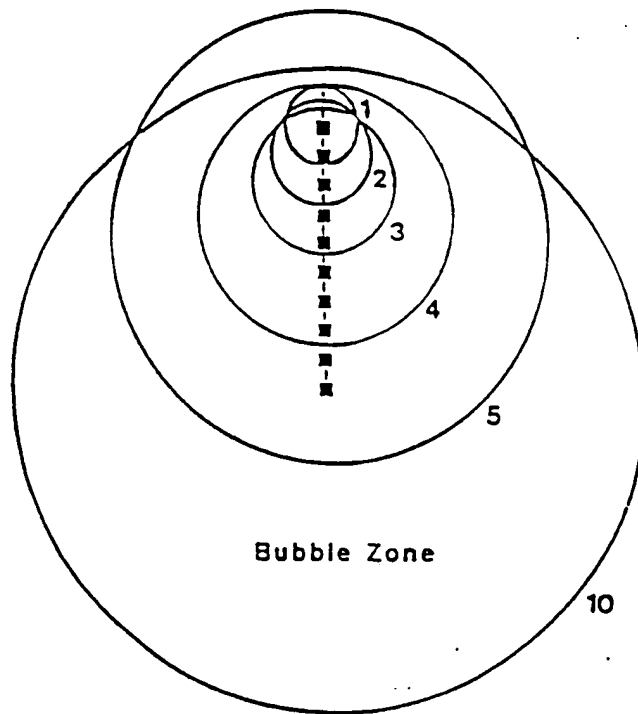


FIG. 26

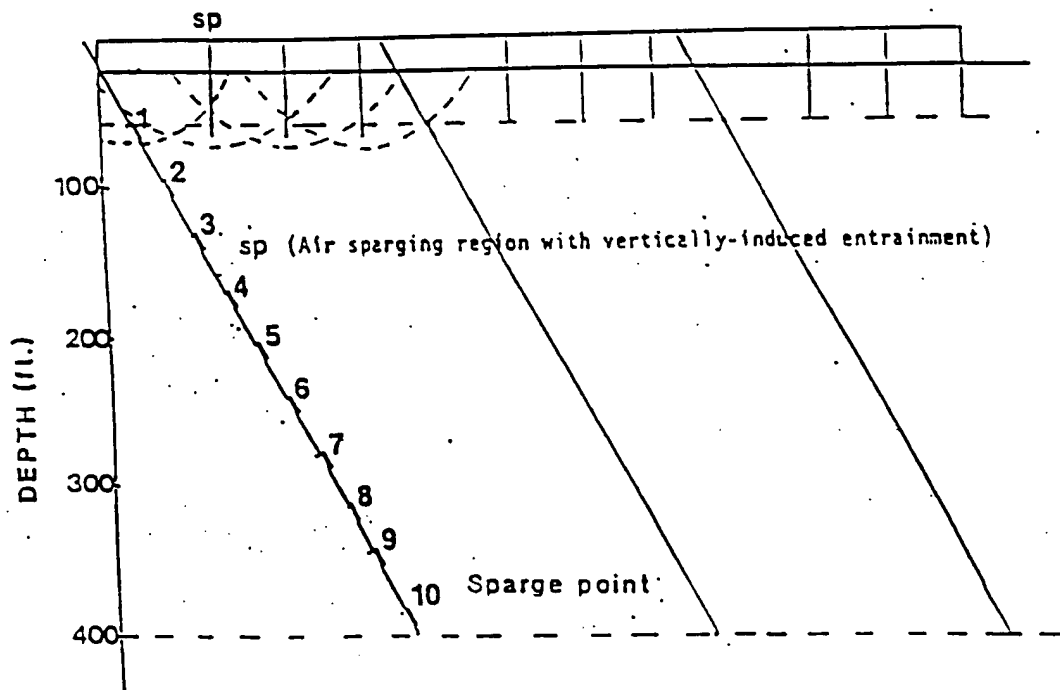


FIG. 27

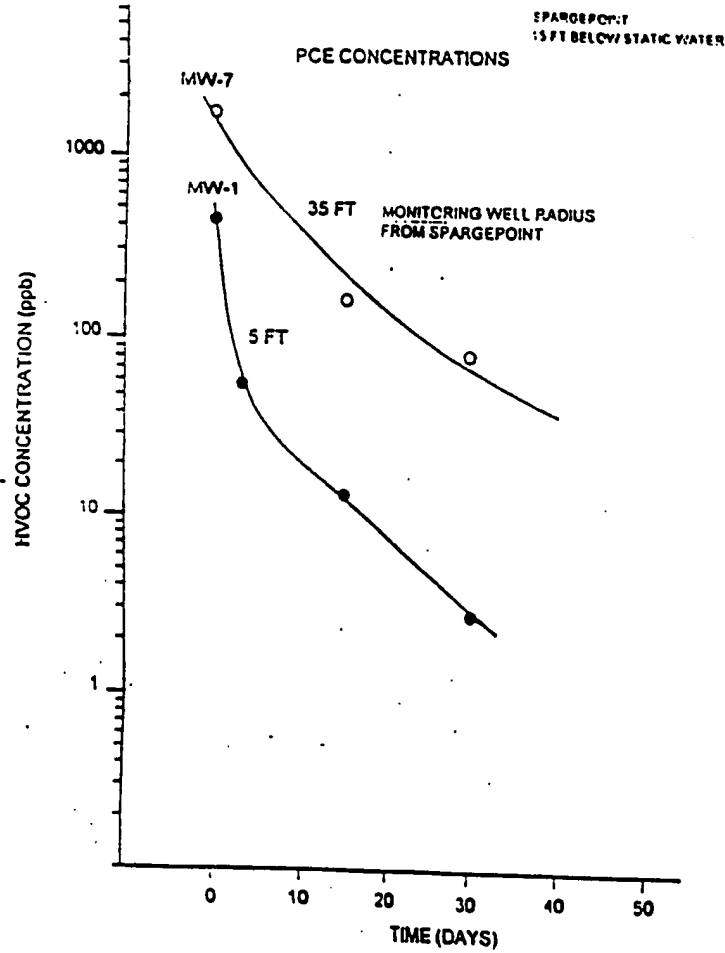


FIG. 28

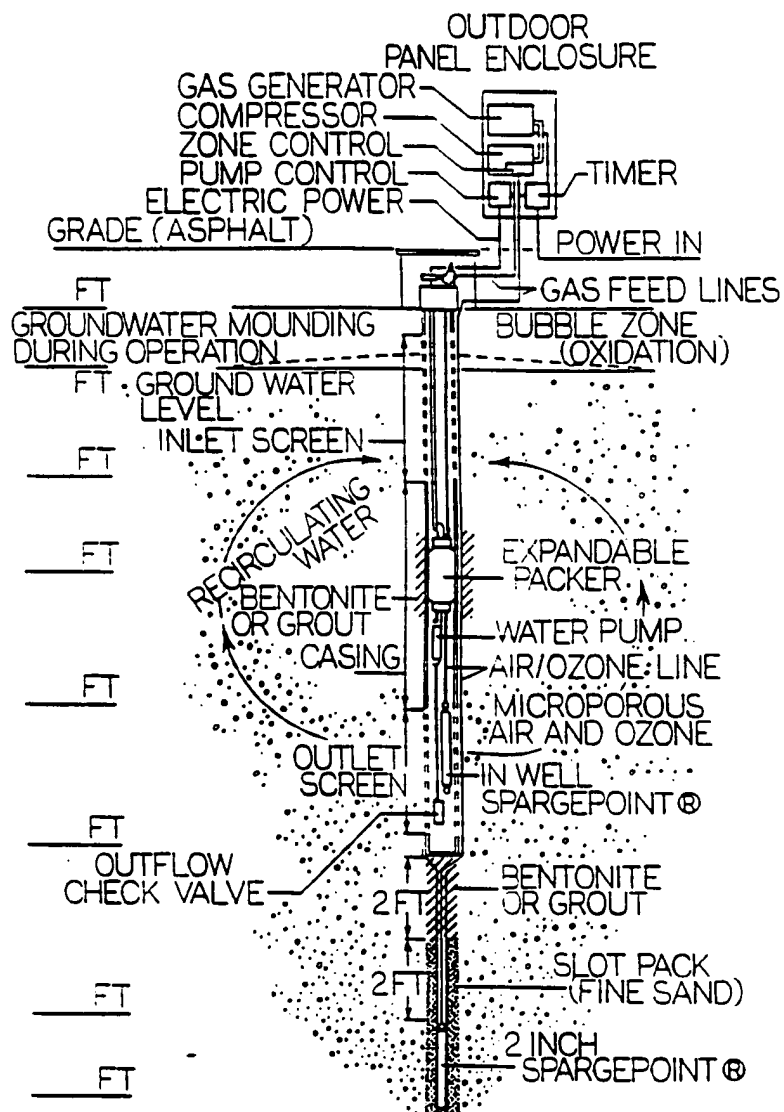
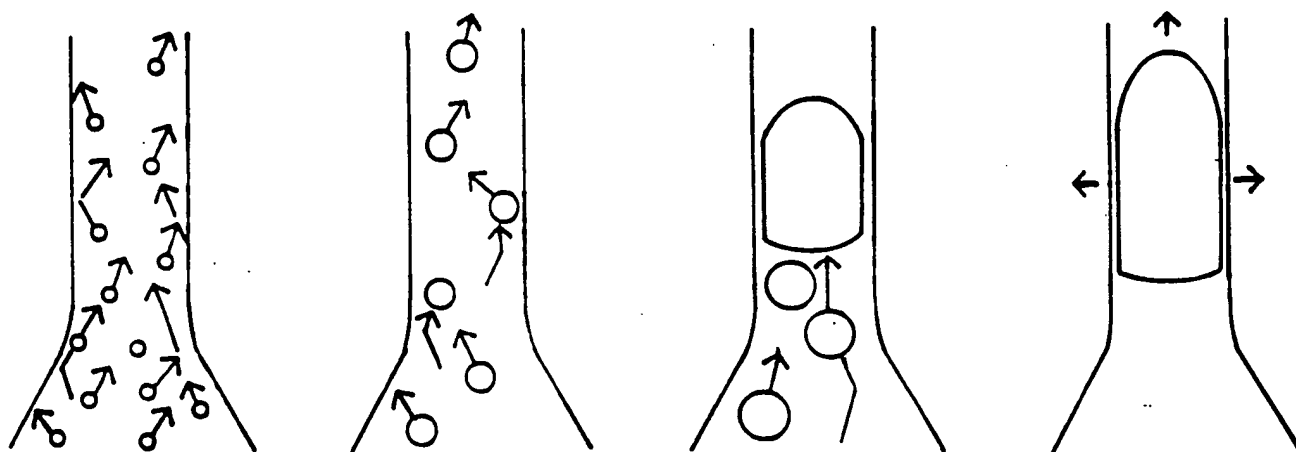


FIG. 29



Movement of microbubbles through saturated pores as diameter of bubble increases. showing coalescing.

FIG. 30

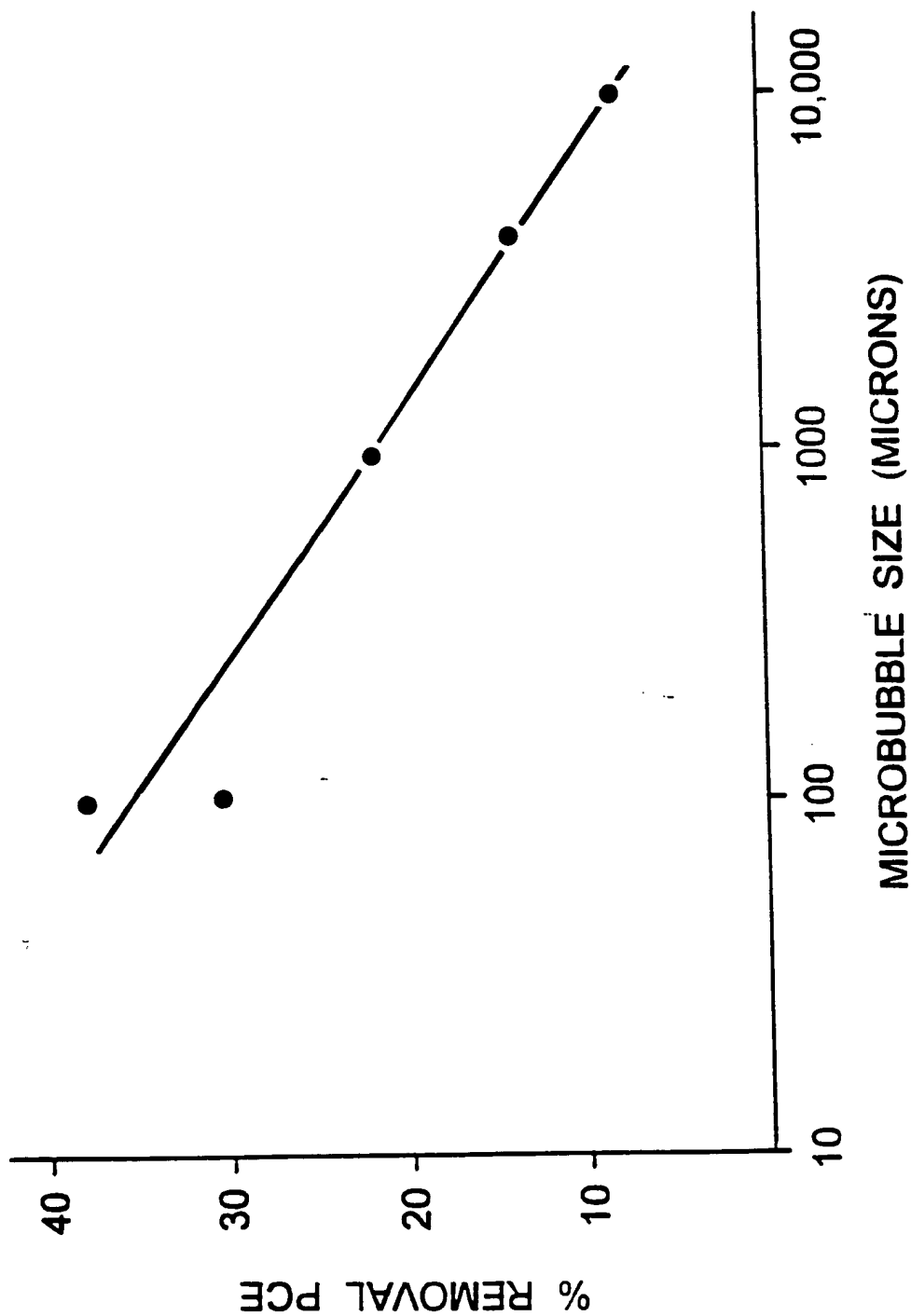


FIG. 31

205220" 257E5660

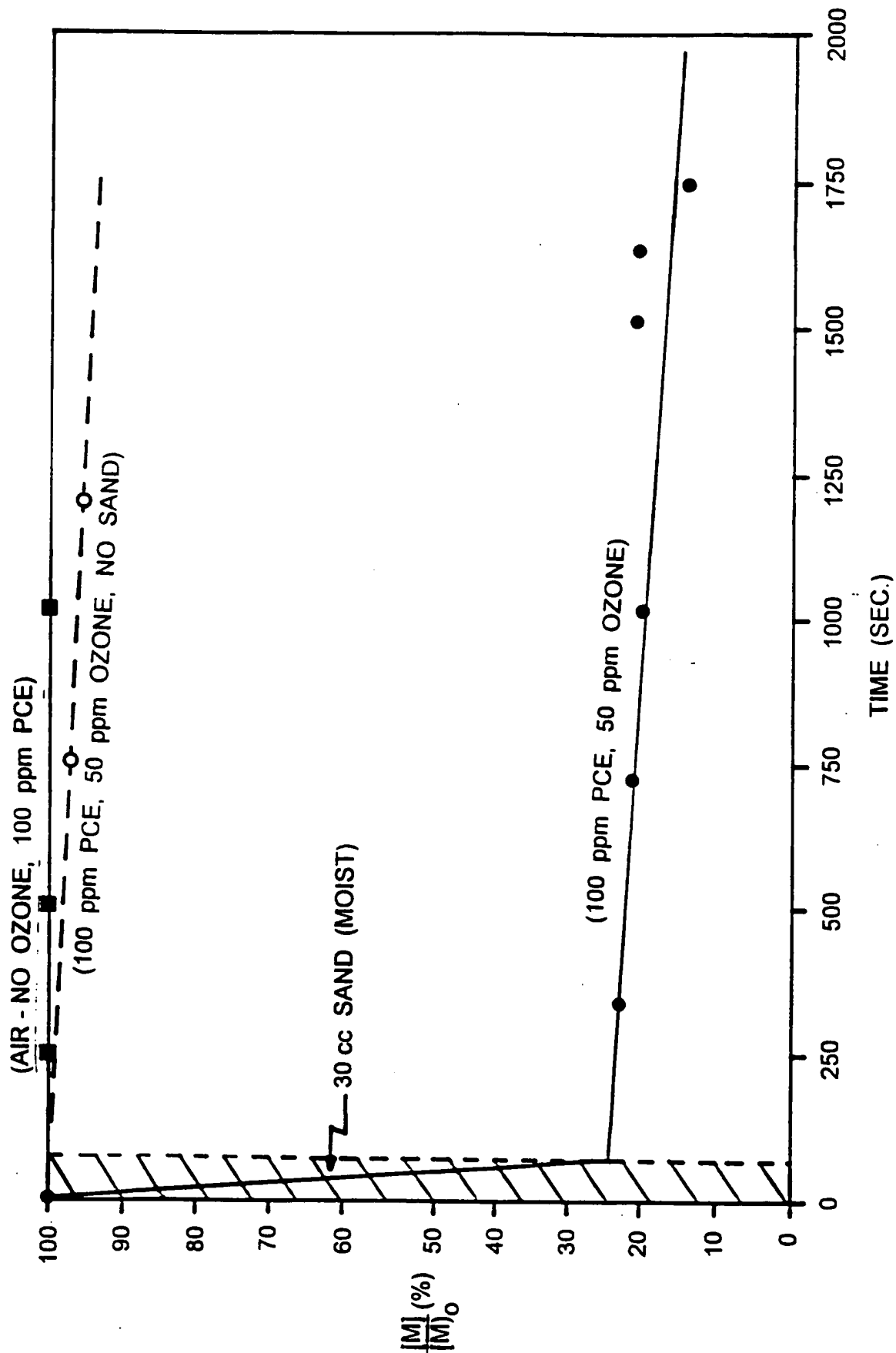


FIG. 32

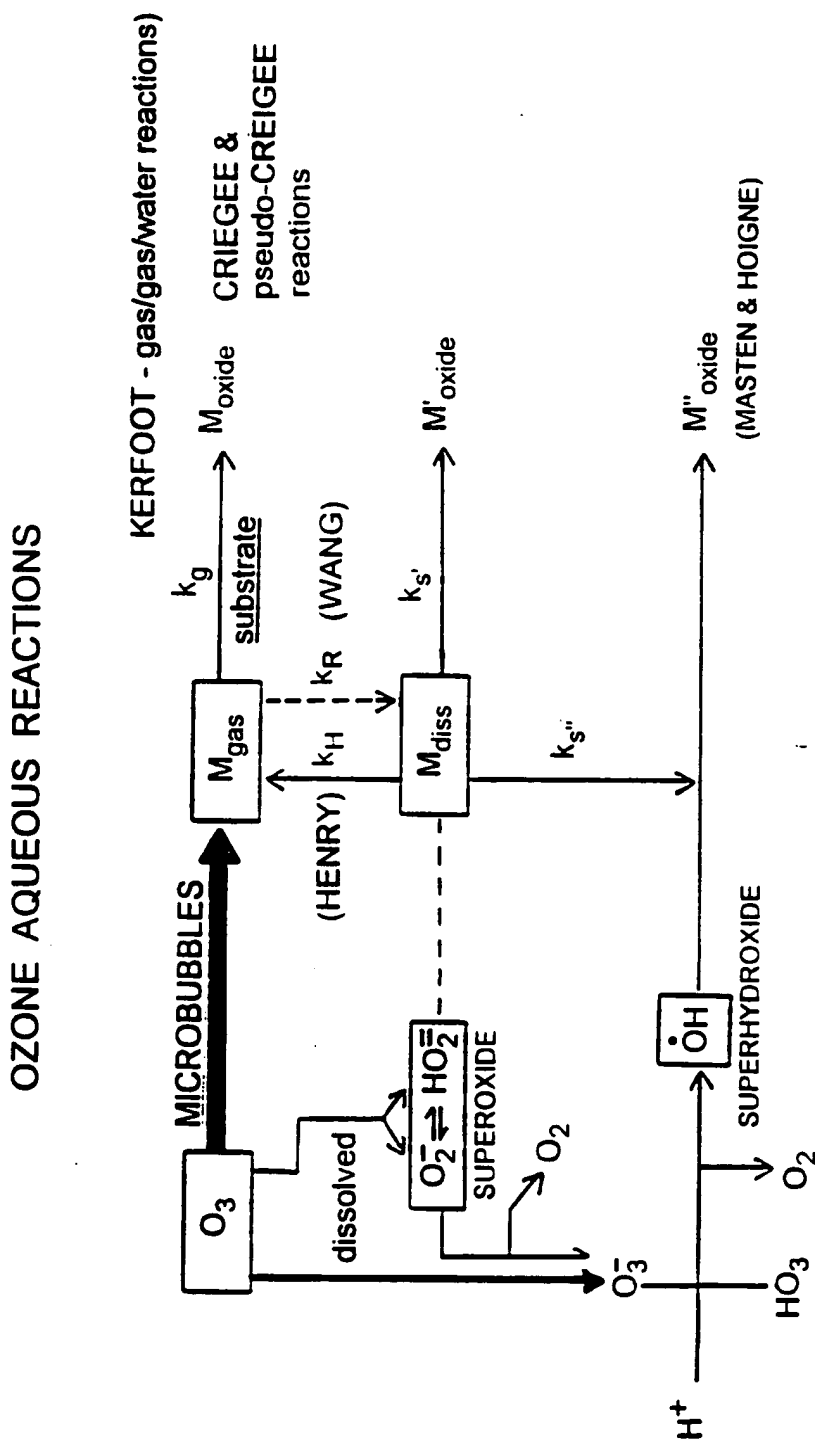


FIG. 33

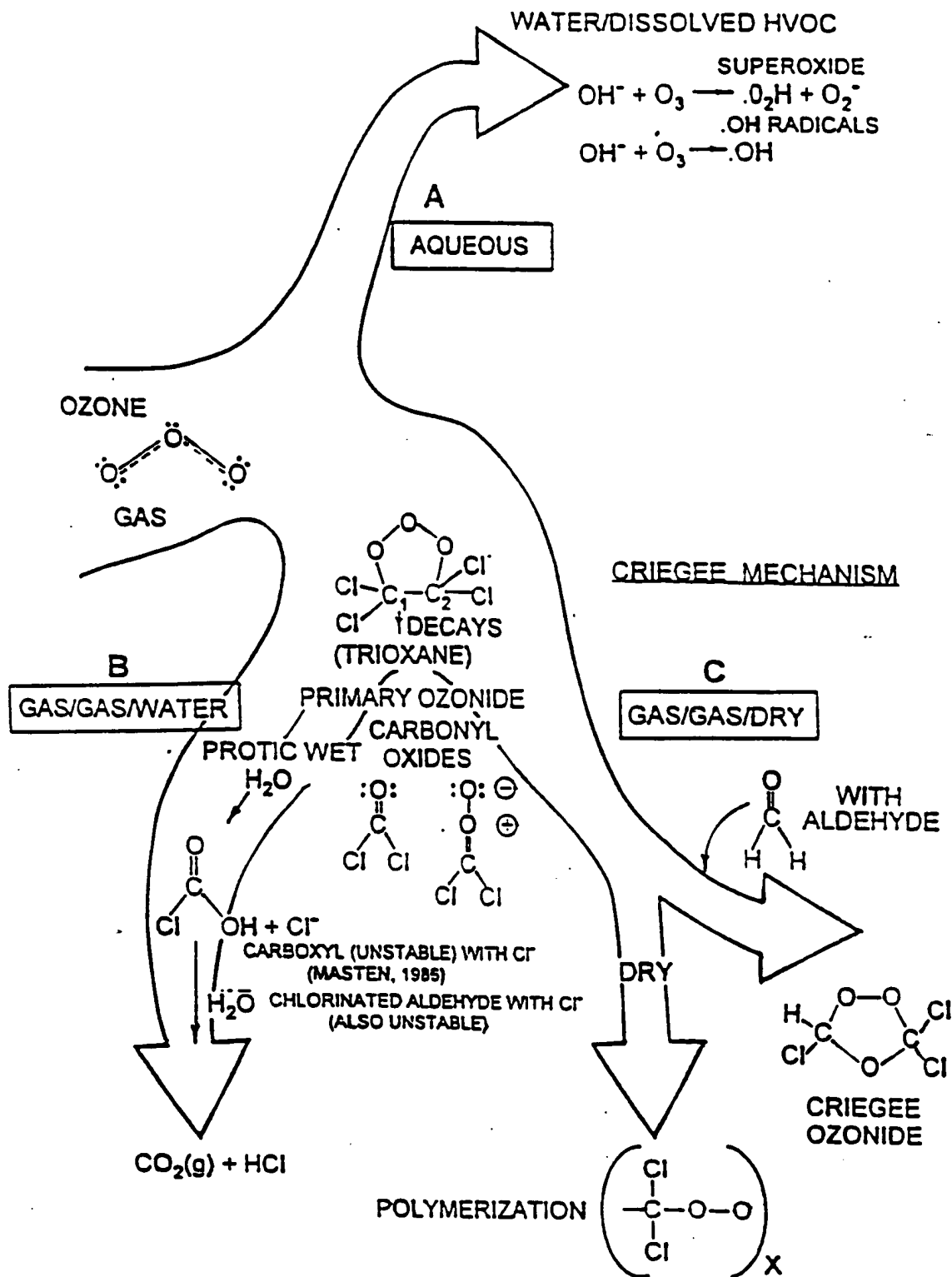


FIG. 34

MICROBUBBLE GENERATOR
COLUMN CHAMBER

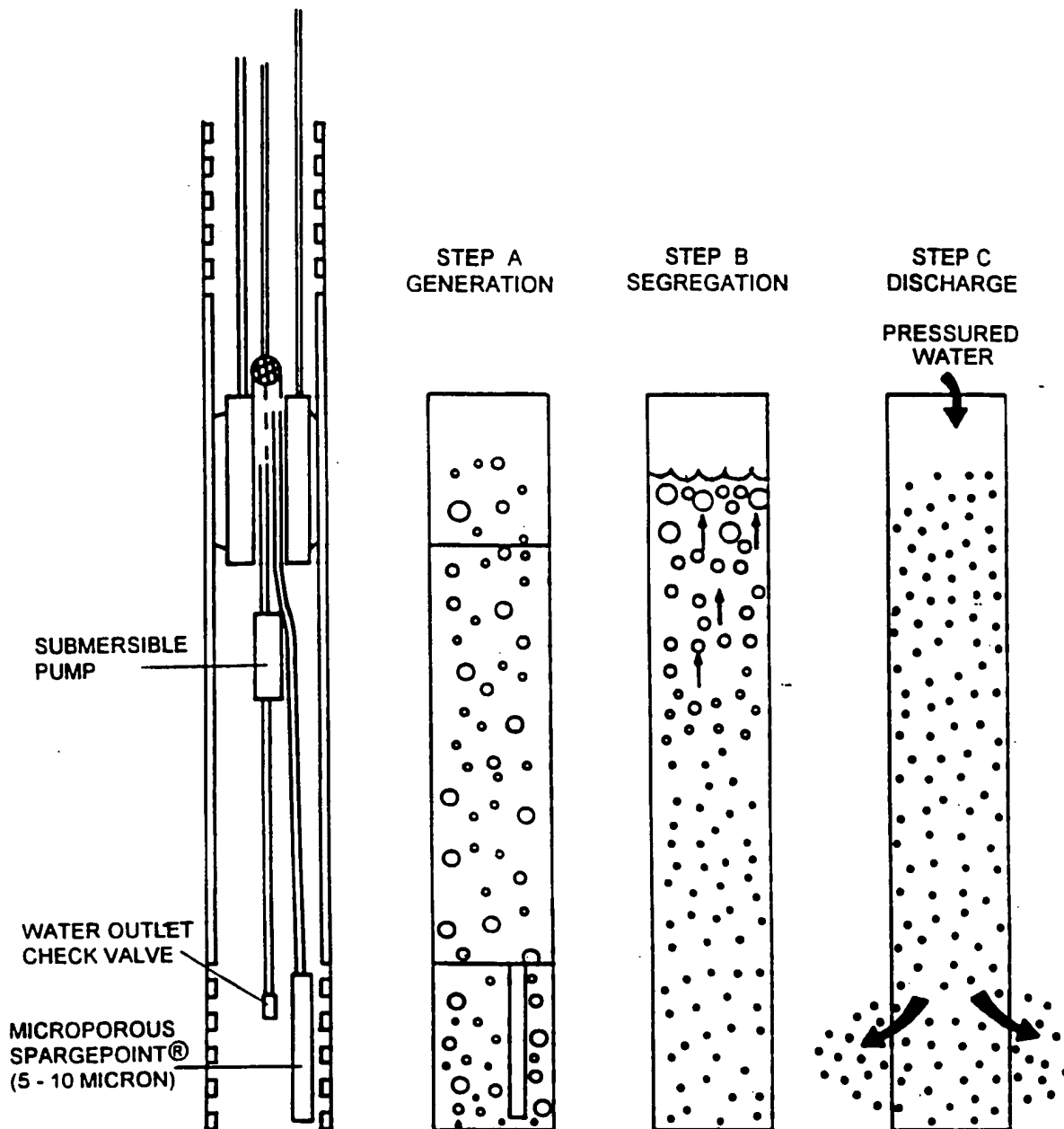
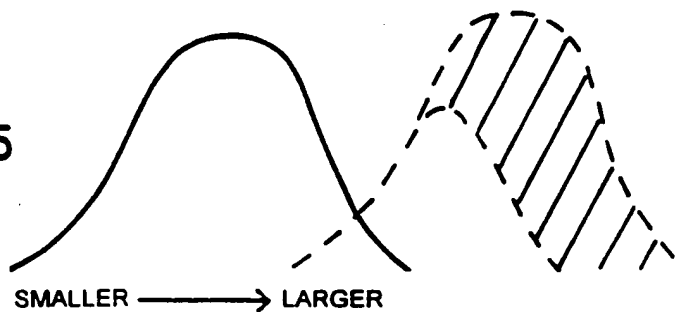


FIG. 35



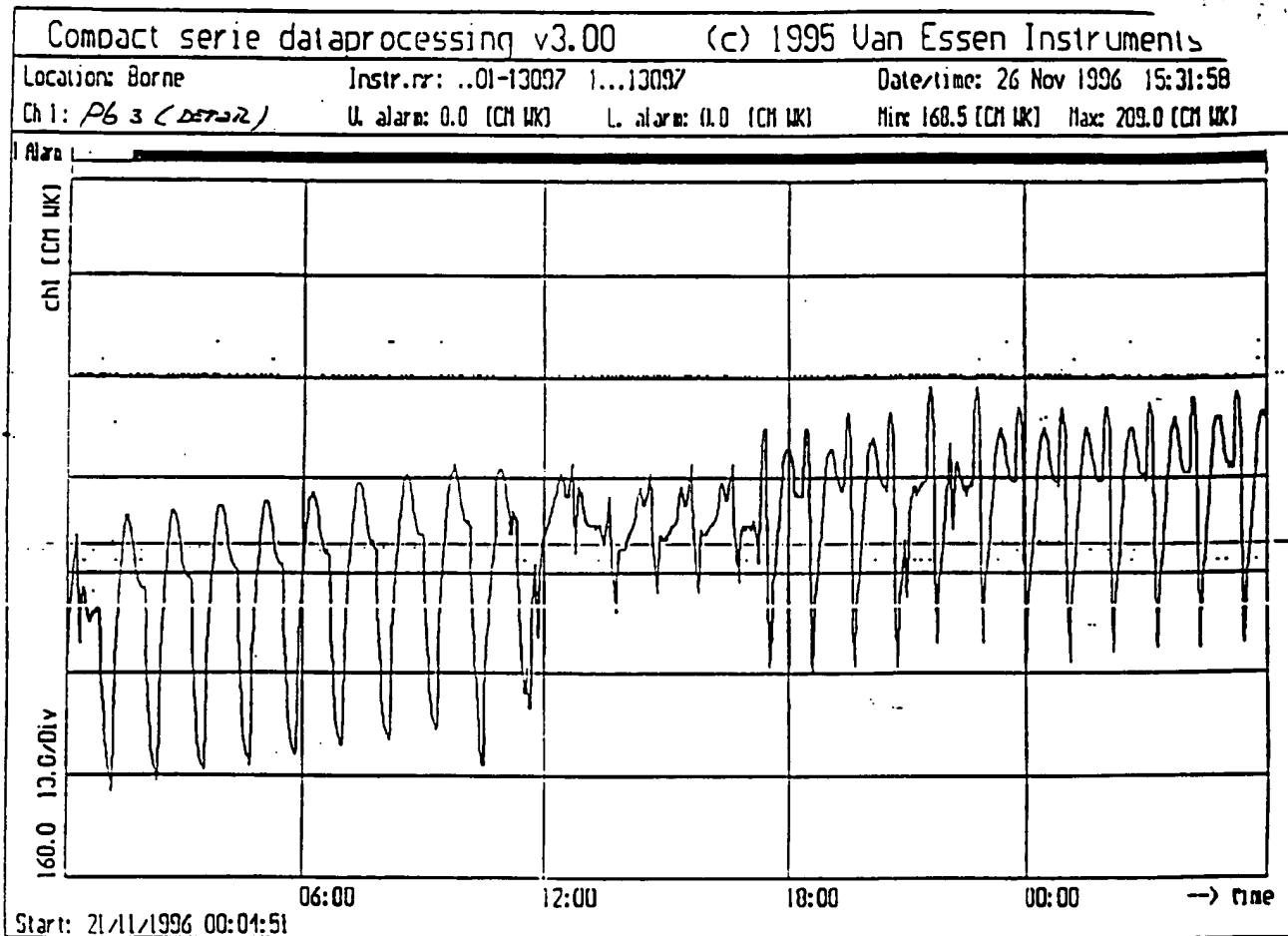
Appln (s): William B. Kerfoot
GAS WATER TREATMENT SYSTEM FOR
GROUNDWATER AND SOIL REMEDIATION

FIG. 36

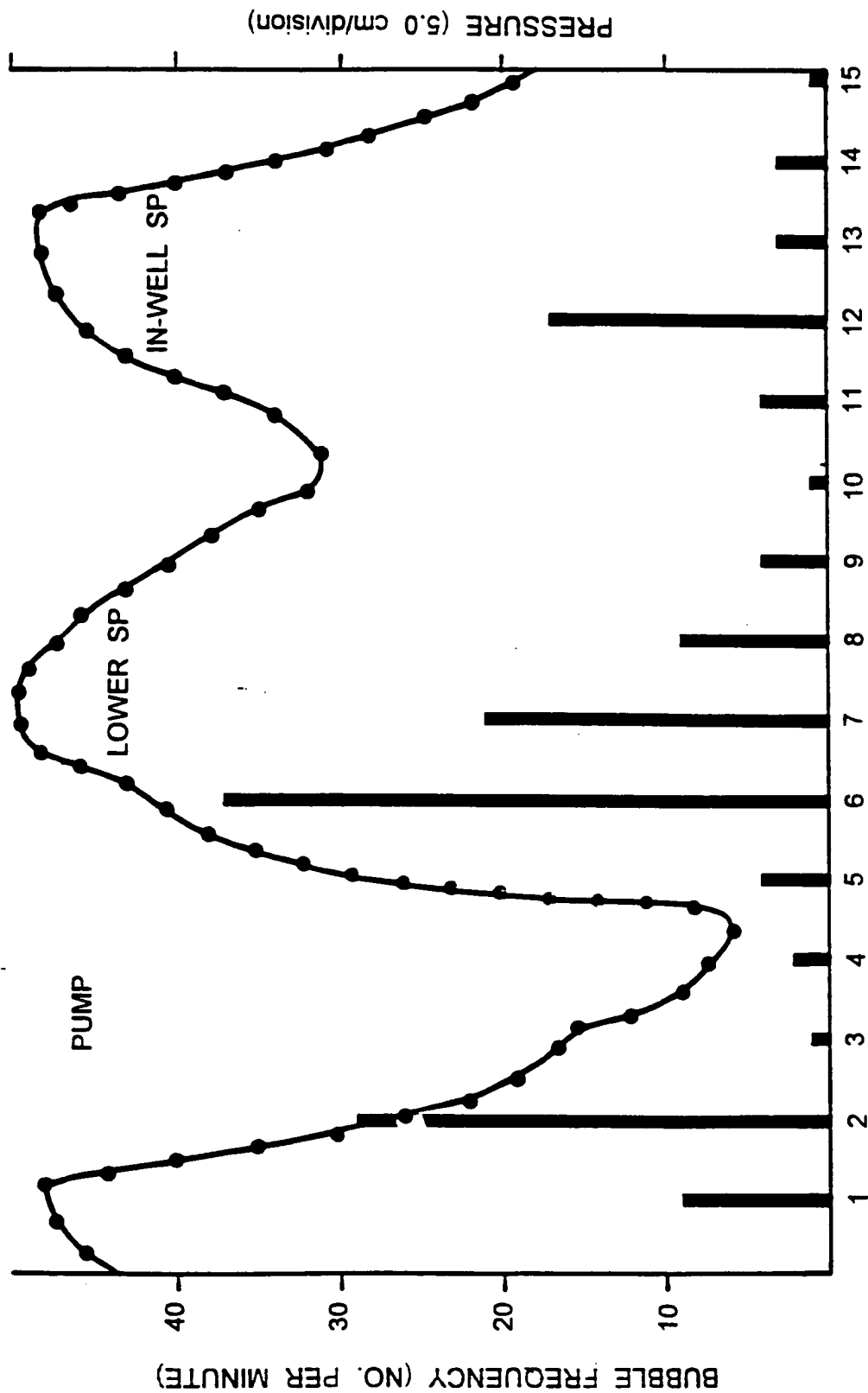


FIG. 37

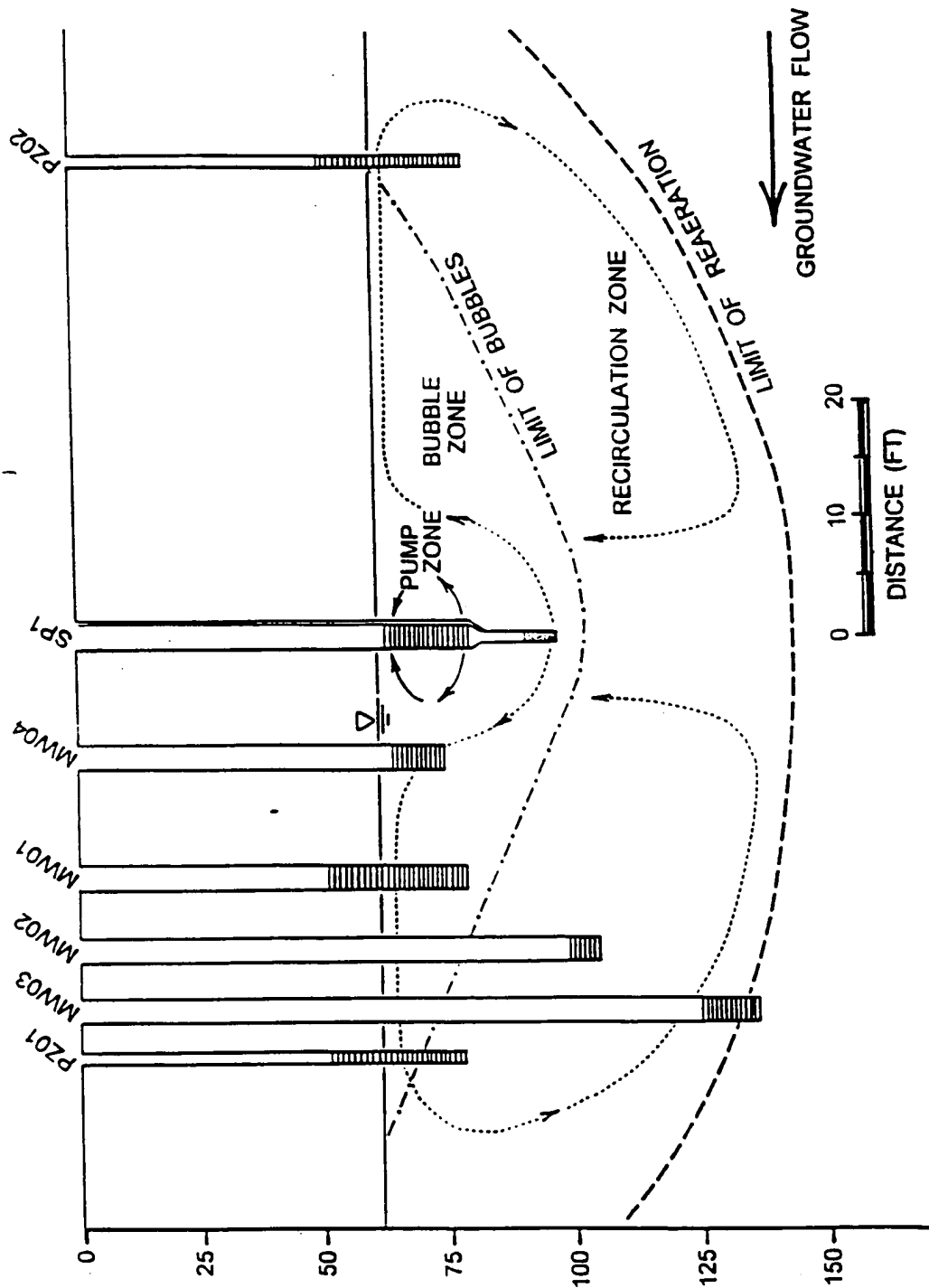


FIG. 38

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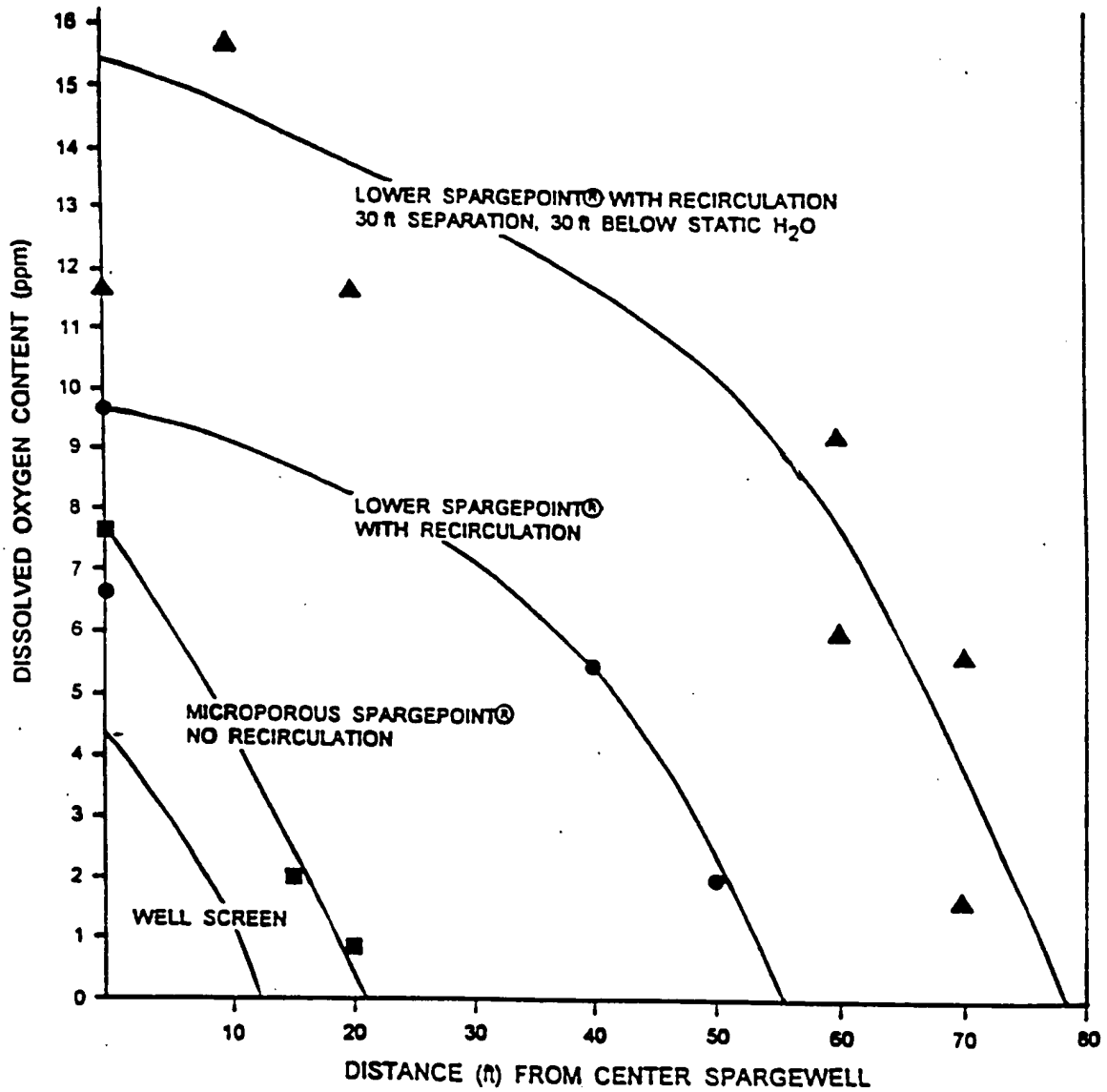


FIG. 39

Applicant: William B. Kerfoot
GAS-INDUCED WATER TREATMENT SYSTEM FOR
GROUNDWATER AND SOIL REMEDIATION

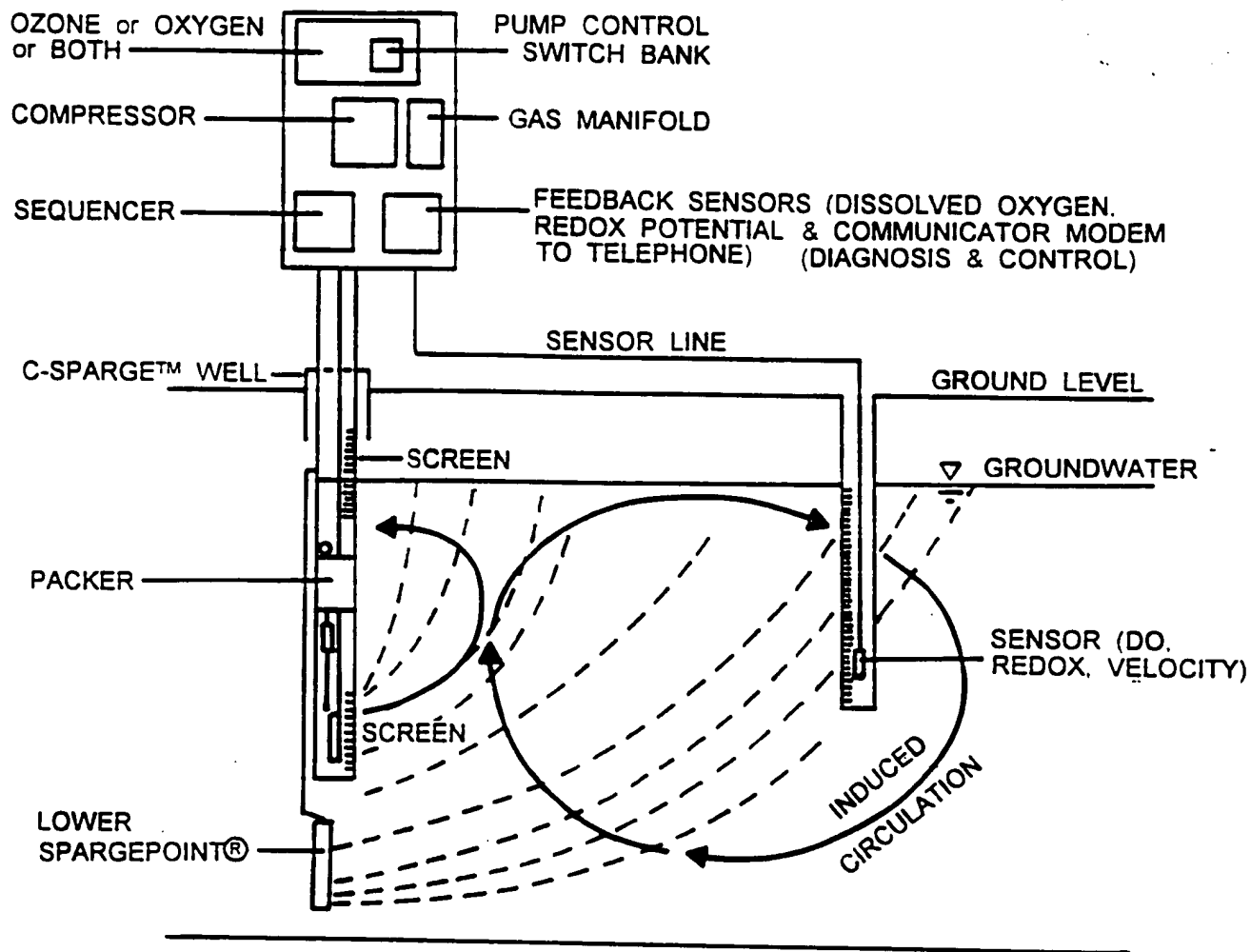


FIG. 40